

SPARK'S DESIGN PROCESS

At SPARK our aim is to truly understand *your* needs and *your* market so we can develop an efficient path to your end goal. We know that no two projects are the same and we won't force you into a cookie-cutter process, but generally our work flow falls into this framework, which we will adjust to provide you as much or as little assistance as you need.

CONCEPT



RESEARCH & IDEATION

Problem Definition
Design Criteria
Functional Conceptualization
Product Architecture
Industrial Design

KEYS

Definition of a product's design criteria is crucial. Before SPARK can begin thinking about development, we must agree with our client on what features and functions are critical, how a product will be used, and what the best means for production will be based on budget and manufacturing methods.

DESIGN



CONCEPT DEVELOPMENT

Mechanical Engineering
CAD Modeling
FEA Analysis
DFMA

KEYS

Design for Manufacture and Assembly (DFMA) is often not considered until the final stages of development. At SPARK, we keep manufacturing in mind from initial ideation. This saves our clients time and money and prevents unexpected road blocks later in the development process.



PROTOTYPING



PHYSICAL TESTING

Rough Mock-Ups
Ergonomic Optimization
Proof of Concept Models
Working Models

KEYS

SPARK believes in physically testing our concepts early and often. This step will test any assumptions about a design before investing in manufacturing. While often an iterative process between design and prototyping, interacting with a physical part always reveals valuable insights that could not be discovered otherwise.

REFINEMENT



FINAL DETAILING

Final Revisions & Detailing
Tool-Ready CAD
2-D Documentation
Manufacturing Support

KEYS

Any insights gathered from prototyping and testing will be translated into design refinements. The product will be finely detailed and prepared for manufacturing (if desired) so you can leave SPARK with a finished, tool-ready design on hand.